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BILATERAL SPERMATOCELE CONCURRENT WITH BILATERAL SCROTAL HYDROCELE PRESENTING HUGE SCROTAL SWELLING

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We report the very rare case of bilateral spermatoceles concurrent with bilateral scrotal hydrocele presenting huge scrotal swelling. A 52-year-old man came to our hospital because of large scrotal swelling. Ultrasonography and magnetic resonance imaging showed bilateral large scrotal hydroceles concurrent with bilateral multicystic spermatoceles above the hydrocele. He had no history of vasectomy or scrotal injury, and the semen examination was normal. The contents of the hydroceles and spermatoceles were first aspirated, but hydrocelectomy and spermatocelectomy were eventually done because after the aspiration the fluid increased more rapidly. Bilateral spermatocele is very rare ; moreover, this is the first report of bilateral spermatocele concurrent with bilateral hydrocele.
(Hinyokika Kiyo **53** : 729–731, 2007)

Key words : Bilateral spermatocele, Bilateral hydorocele

INTRODUCTION

Spermatoceles and scrotal hydroceles are often seen in relatively elderly men and are classified as benign intrascrotal diseases. A hydrocele is a collection of fluid between the parietal and visceral layers of the tunica vaginalis and is caused by impaired absorption of that fluid. It sometimes causes huge scrotal swelling. A spermatocele is a sperm-containing cyst either in the rete testis or the head of epididymis and is most often caused by occlusion of the efferent ducts of the testis, vasectomy or scrotal injury. It is usually less than 1 cm across but sometimes increases in size and forms a large multicystic mass unilaterally[1]. Only 3 cases of bilateral spermatocele have been reported. To our knowledge, this is the first report of a patient with bilateral spermatocele and bilateral hydrocele.

CASE REPORT

A 52-year-old man visited our hospital because of large scrotal swelling. He had had no specific kinds of diseases. Ultrasonography showed bilateral spermatoceles and scrotal hydroceles. A puncture was done, and the fluid of both hydroceles (right 180 ml, left 40 ml) and the left spermatocele (30 ml) was aspirated. About four months after the puncture, he came to our hospital again because the scrotal swelling had become much larger. Scrotal swelling extended to the right inguinal region, and he complained of severe scrotal discomfort. Ultrasonography and magnetic resonance imaging showed the bilateral multicystic spermatoceles above the bilateral hydroceles (Fig. 1). The right hydrocele was about 75×60 mm and the left hydrocele was about 45×40 mm. Each spermatocele was about 55×40 mm. He had had two children and no history of vasectomy or scrotal injury. Results of hematological and biochemical examinations, including semen analysis, were normal. An operation was performed because the scrotal swelling was too large to aspirate again. Exploration was done through an inguinoscrotal incision on the right side. The content of right scrotum was exteriorized, and then the tunica vaginalis was opened (Fig. 2). About 300 ml of transparent yellow fluid in the right

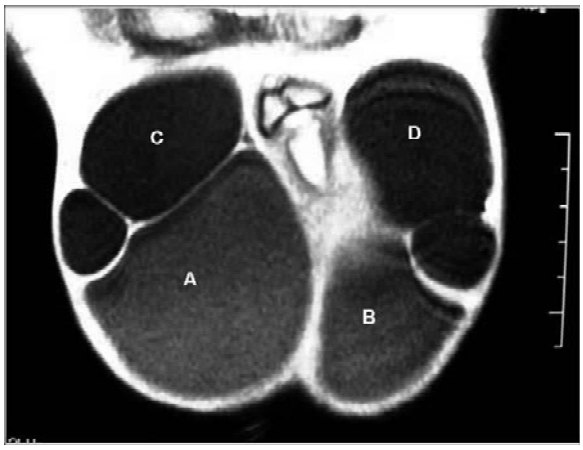

Fig. 1. MRI (T1) showing bilateral hydoroceles (A, B) and bilateral spermatoceles (C, D).

Fig. 2. Multicystic spermatocele.

Fig. 3. A narrow duct seems to connect this spermatocele to the head of the epididymis.

hydrocele was aspirated. The right spermatocele was covered by the visceral lamina of the tunica vaginalis and appeared when the lamina was removed. This spermatocele seemed to be connected to the head of the right epididymis by a narrow duct (Fig. 3). The spermatocele was excised and its content was about 50 ml of cloudy white fluid containing a lot of spermatozoa. About 200 ml were aspirated from the left hydrocele, and the left spermatocele were found to contain about 50 ml of fluid when it was excised. Bilateral epididymes were apart from each testis at the body. Biochemical examination revealed that the fluid of the hydroceles and spermatoceles were almost identical.

DISCUSSION

A spermatocele is a benign intrascrotal lesion seen in 0.2–4% of men and very rarely seen before adolescence. Occlusion of the efferent ducts of the testis causes one or more cysts containing sperm to form near the head of the epidydimis[1]. Itoh et al. suggested that they may form when agglutinated germ cells block the lumen of the efferent ducts[2]. They may also be caused by epididymitis or physical trauma associated with vasectomy. A spermatocele is usually less than 1–2 cm in diameter but sometimes grows to 4–5 cm or more, causing patients to complain of scrotal swelling, pains or dullness. Spermatoceles are easy to diagnosis on the basis of history and physical examination alone. Aspiration is useful for the diagnosis but may induce infection. Spermatocelectomy should be considered when the symptoms are severe. Bilateral spermatocele is very rare, and only three cases have been reported. The first occurred 17 years after bilateral vasectomy[3], the second was of unknown origin[4] and the third was primary bilateral spermatocele which had been seen since adolescence[5]. In our case, scrotal swelling had been seen since the man was 50 years old, and there was no special reason for the spermatocele or hydrocele.

Scrotal hydrocele is a collection of fluid between the parietal and visceral lamina of the tunica vaginalis. The pathogenesis of hydrocele is based on an imbalance between the secretion and resorption of fluid in the tunica vaginalis[1]. Rinker et al. reported that patients who had a hydrocele also had defective lymphatic drainage resulting in inadequate resorption of serous fluid[6]. In our case, lymphatic drainage was not inquired although the attachment of the head of the epididymis to the testis was flimsy bilaterally.

To our knowledge, this case is the first case of bilateral large spermatoceles concurrent with bilateral large hydroceles. The patient did not have a history of vasectomy or injury, and his semen was normal. Scrotal swelling reached almost to his inguinal region. After aspiration was done the fluid increased more rapidly than before, so the tunica vaginalis was opened and the fluid of the hydroceles was aspirated and the spermatoceles covered with the visceral lamina of the tunica vaginalis were removed. Each spermatocele seemed to be connected to the head of the epididymis.

The relationship between scrotal hydrocele and spermatocele is not clear. However, there may be common system or genetic change because cell degeneration could cause not only disorder of absorption in the hydrocele, but also the occlusion of the ducts in spermatocele, resulting in concurrent occurrence.

In conclusion, there have been only three reports of bilateral spermatoceles, and this is the first repost of bilateral spermatocele concurrent with bilateral hydrocele.

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和文抄録

両側陰嚢水腫を併発し著明な陰嚢腫大を呈した両側精液瘤の1例

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雄勝中央病院泌尿器科

われわれは両側陰嚢水腫を併発し，著明な陰嚢腫大を呈した両側精液瘤の1例を経験したので報告する．症例は52歳，男性．著明な両側陰嚢腫大を主訴に受診．エコーおよびMRIにて両側陰嚢水腫および両側精液瘤と思われる多房性の液体貯留を認めた．精液検査は異常なく，精管結紮術や陰嚢部の外傷などの既往もなかった．最初は吸引穿刺を行ったが，その後以前より急速に増大するため手術を施行した．両側精液瘤は比較的稀な疾患であり，両側陰嚢水腫を伴った症例はこれまでに報告がない．

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